

STUDIES ON MIKANIA (COMPOSITAE)-VIII

W. C. Holmes

Biology Department, Northwestern State University  
Natchitoches, LA 71457

and

Institute for Botanical Exploration  
Box EN, Mississippi State, MS 39762

Continued studies on *Mikania* (Compositae-Eupatorieae) have resulted in the following new species and notes on the distribution or synonymy of others.

*MIKANIA CERCIFOLIA* Holmes, sp. nov.

Suffrutex volubilis; foliis cordiformis, acutis, 2-3 cm longis, 2-3 cm latis, reticulatis, quinquenervis, marginibus denticulatis; corymbosis 2.5-3 cm longis et 3 cm latis; capitulis 11 mm longis; corollis 6 mm longis, dentibus limbi lanceolatis, ca 2 mm longis; achaenis ca 4.5 mm longis; pappi seti ca 80, 5-5.5 mm longis, scabridis.

Suffrutescent liana; stems twisted, glabrous, often crisped-puberulent on younger parts, greenish to purplish, 4-angled, the angles lightly winged to ribbed; internodes 3-9 cm long. Leaves opposite, semi-coriaceous, broadly cordiform, 2-3 cm long and 2-3 cm wide, apices acute, margins ciliate and denticulate, the teeth 5-7 mm apart, basal sinus open, 5-nervate from the base, upper surfaces green, glandular, prominently reticulate, the veinlets exserted from the surface, lower surfaces purplish, somewhat glandular and obscurely puberulent, the major nerves whitish, the veinlets reticulated, exserted from the surface, but less prominent than above; petioles 1-1.5 cm long, 4-angled, sparingly to moderately setose, somewhat grooved above, the opposite petioles connate by a stipule-like ridge ca 5-7 mm long, 1-1.5 mm wide, margins entire to incised. Capitulescence a terminal and lateral corymb, 2.5-3 cm high, 5 cm in diameter, branching trichotomously, the heads disposed in clusters of 3's at the tips of the branchlets; branchlets 4-angled, puberulent, glandular; bracts ovate to subrhombic, 5-10 mm long, apices acute to rounded, margins denticulate, ciliate, bases truncate to cuneate; pedicels 0.5-3 mm long, angular, puberulent, glandular, the center pedicel usually ca one-half the length of the outer two. Heads ca 11 mm long; exterior bracts ovate to obovate, ca 7 mm long, apices obtuse, margins ciliate, surfaces reticulate, bases acute to cuneate, those of the outer pair of heads borne near the summit of the pedicel, the center one borne near the base. Phyllaries elliptic-oblong, 7-7.5 mm long, the outer pair puberulent, the inner glabrous, apices acute, setose. Corollas ca 6 mm long,

tube narrow, ca 3.7 mm long, throat abruptly expanded, ca 0.3 mm long, teeth lanceolate, ca 2 mm long, the veins submarginal. Achenes ca 4.5 mm long, pale to light green, puberulent toward the summit. Pappus bristles ca 5-5.5 mm long, ca 80, slightly buff (in age after drying), gradually thinning toward the apices, margins scabrid (Fig. 1).

Holotype: BOLIVIA: Gran Poder, small gold mine ca 40 km N of Sorata, in narrow wooded valley below Tacacoma (long. 68-30 W, lat. 15-30 S), damp shady slope, alt. ca 3000 m, 4 Jun 1950, Brooke 6442 (BM).

Mikania cercifolia is distinctive in possessing 4-angled stems and opposite leaves that are connate by a stipule-like ridge. The cordiform leaves are fairly uniform in size, normally 2-3 cm long and wide, and have denticulate margins and prominently reticulate surfaces. The trichotomously branching corymb has heads ultimately disposed in groups of threes, the center head borne on a pedicel that is about one-half the length of the pedicels of the outer pair. The corolla is characterized by a narrow tube, very short and abruptly expanded throat, and lanceolate teeth about 5-6x the length of the throat. Veins of the teeth are submarginal.

The new species appears related to Mikania fiebrigii Hieron., known only from Bolivia. That species has terete stems, larger leaves that are prominently incised-dentate, much larger stipule-like enations, linear exterior bract, and corolla with the throat being slightly longer than the teeth.

The species is named after its leaves, much resembling those of Cercis canadensis L.

Paratype: BOLIVIA: Cochabamba, near Cervecería Colon, Quebrada Colon, 20 km E of Cochabamba, on riverbank in tangled tall Compositae, Salvia, Datura, Cleome, etc., perennial herb, procumbent, rays dark brown, 14 Mar 1939, Eyerdam 24771 (GH, UC).

MIKANIA STENOPHYLLA Holmes, sp. nov.

Suffrutex volubilis; foliis anguste hastiformis, attenuatis, 3-5 cm longis, 0.6-2.5 cm latis; corymbosis 1-3 cm longis, 1-3 cm latis; capitulis ca 5 mm longis; corollis 3-3.3 mm longis, dentibus limbi ovatis, 0.5-0.6 mm longis; achaenis ca 1.5 mm longis; pappi setis 35-40, ca 3.3 mm longis, scaberulis.

Slender twiner; stems terete to obscurely angled, 1-2 mm in diameter, glabrate to finely puberulent; internodes 8-18 cm long. Leaves opposite, narrowly hastiform, 3-5 cm long, 0.6- 2.5 mm wide, apices acuminate, margins subentire to denticulate to remotely serrate, basal lobes acute, to ca 8 mm long, bases subcuneate at point of insertion of the petiole, palmately 5-nervate, above glabrate to puberulent, veinlets obscure, below puberulent, glandular; petiole thin, 1.5-3.5 cm long, sulcate (after drying), puberulent, opposite petioles connected by a lacerate stipule-like enation, ca as wide as the stem, the lobes ca 0.8 mm long, apparently deciduous from the lower nodes. Capitulescence a corymb, terminal and axillary, 1-3 cm high, 1-3 cm wide; branchlets sulcate, puberulent; bracts linear, to ca 1.3 cm long, puberulent. Heads ca 5 mm long; exterior bract linear to lanceolate, ca 2 mm long, appressed

puberulent, apices acuminate. Phyllaries lanceolate-elliptic, ca 3.3 mm long, appressed puberulent, 1-3 nervate, apices acuminate. Corollas cream to white, 3-3.3 mm long, tube 1.3-1.5 mm long, throat funnelform, 1-1.2 mm long, teeth ovate, glandular, 0.5-0.6 mm long; stigmatic surfaces hirsute. Achenes dark brown, ca 1.5 mm long, glandular. Pappus bristles ca 3.3 mm long, ca 35-40, white (Fig. 2).

Holotype: BRASIL: Mato Grosso, Porto XV (mun. Bataguacu), brejo ao Rio Parana, 31 Aug 1973, Hatschbach 32528 (MBM, holotype, NATC, isotype).

The new species has close affinities with the *Mikania scandens* (L.) Willd. complex, a group of small headed slender twiners with hastate to cordate to saggitate leaf bases and corymbose capitulescences. Apparently nearest to *Mikania periplocifolia* H. & A. of southern South America, a species with a much denser capitulescence, approaching a glomerule, considerably wider leaves, and phyllaries with rounded apices.

*Mikania ypacarayensis* Holmes and McDaniel, also of southern South America, is another species of this complex that is similar to the new species. It is distinguished by its densely pubescent stems, wider leaves, much larger capitulescence, and achenes with upwardly scabrid angles.

Paratype: BRASIL: Mato Grosso, Col. Paxixi (mun. Aquidauana, 19 Feb 1970, Hatschbach 23818 (MBM, NATC).

MIKANIA LINDLEYANA DC. Prodr. 5:195. 1836. Type: GUIANA (CGE, not seen; Fig. 3).

*Mikania lindleyana* is a species distributed over much of northern South America. Robinson (1928) first reported this species in Panama, based on the specimen cited below. I have compared this specimen with plants from South America and agree with Robinson's determination. This species was not included in King & Robinson's (1975) treatment of the genus for the "Flora of Panama."

Specimen examined: PANAMA: Frijoli Station of the Panama Railroad, climbing high on trees in wet woods, 6 Feb 1862, Hayes 490 (BM).

MIKANIA GONZALEZII B.L.Robins. and Greenm., Proc. Boston Soc. Nat. Hist. 29:107. 1899. Syntypes: MEXICO: Vera Cruz, Colonia Melchor Ocampo, 1200 m, 8 Dec 1895, Conzatti 18 (GH); Vera Cruz, Canton de Cordoba, 27 Dec 1897, Conzatti and Gonzalez 637, in part (GH?).

*Mikania gonzalezii* rather closely resembles *M. cordifolia* (L. f.) Willd., but has somewhat larger heads, flattish (uncrisped) corolla teeth, broader and blunter phyllaries, and less prominently angled stems. Robinson (1928) reported the occurrence of the species in Colombia (Killip and Smith 19469 (GH)). The range of this plant may now be extended into Panama, and is expected to be found throughout much of Central America. This, with the preceding species and *M. cristata* B.L.Robins. (Holmes & McDaniel, 1979), numbers the *Mikania* known from Panama at 18.

Specimen examined: PANAMA: Chiriqui, Palo Santo, 3 mi N Volcan, 19 Feb 1971, Croat 13579 (LL; King & Robinson (1975) cite Croat 13579 (MO) as *M. cordifolia*, but I have not examined that specimen.)

MIKANIA CONGESTA DC., Prodr. 5:197. 1836. Type: PUERTO RICO: Bertero s.n. (G-DC).

Mikania congesta is distributed from Puerto Rico and the Lesser Antilles through northern South America to Brasil, Bolivia, and Peru. Adams (1972) did not include this species in the flora of Jamaica. However, the plant was reported in Jamaica by Moore (1928). I have examined the specimen cited by him and confirm his determination. The species somewhat closely resembles M. micrantha HBK., but the capitulescence is glomerate rather than corymbose. The exterior bract is also the same length or longer than the involucre, while in M. micrantha, the bract is ca one-half the length of the involucre.

Specimen examined: JAMAICA: without exact location, Masson s.n. (BM).

WILLOUGHBYA LUZONIENSIS Merrill, Philipp. Journ. Sci. 4: 320. 1909.

Willoughbya is a synonym of Mikania. The plant described by Merrill is certainly not a Mikania. His description calls for a plant with an ovoid or ovoid-elliptical berry, ca 2.5 cm long and 2 cm in diameter, among other differences. The description appears to refer to the genus Willughbeia Roxb. (Apocynaceae), Pl. Corom. 3: 77. t. 280. Feb-Mar 1820.

I wish to thank Gert Hatschbach of the Museu Botanico Municipal, Curitiba, Parana, Brasil, for some of the specimens used in this study. Also to Chris Wells of Mississippi State University for the use of his computer-word processor used to type this manuscript. Appreciation is extended to the herbaria cited for their loan of specimens.

#### LITERATURE CITED

- Adams, C.D. 1972. Flowering plants of Jamaica. Univ. West Indies Press, p. 769-771.
- Holmes, W.C. & S.McDaniel. 1979. Notes on Mikania (Compositae)-V. Phytologia 41: 183-197.
- King, R.M. & H. Robinson. 1975. Eupatorieae. In "Flora of Panama" (R.E.Woodson & R.W.Schery, eds.). Ann. Mo. Bot. Gdn. 62: 888-280.
- Moore, S. 1928. Notes on Jamaican plants. Journ. Bot. 66: 165-166 (Mikania).
- Robinson, B.L. 1928. Records preliminary to a general treatment of the Eupatorieae, VI. Contr. Gray Herb. 77: 3-62.

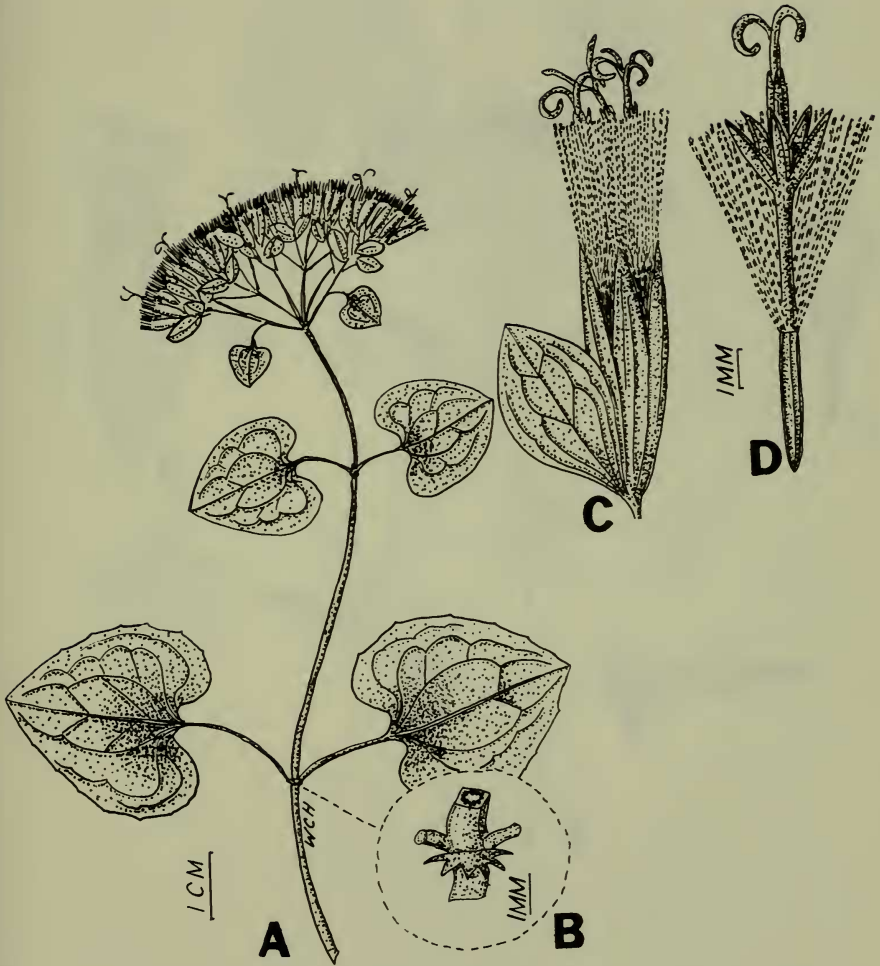


Fig. 1. *Mikania cercifolia* Holmes. A. habit. B. node and stem. C. head. D. flower. (After Brooke 6442 (BM)).

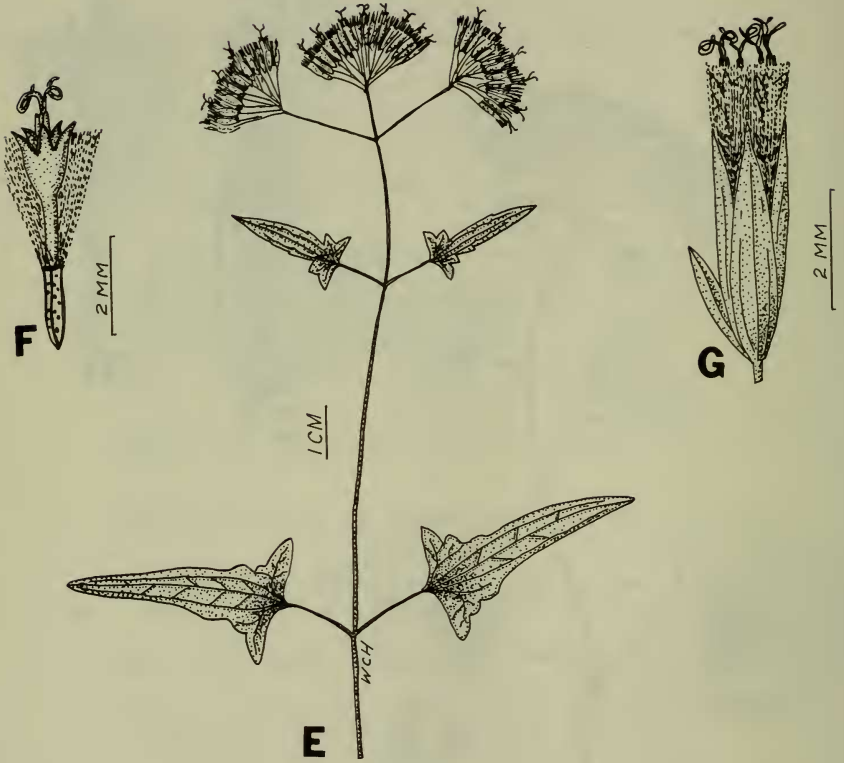


Fig. 2. *Mikania stenofolia* Holmes. E. habit. F. flower. G. Head. (After Hatschbach 32528 (NATC)).

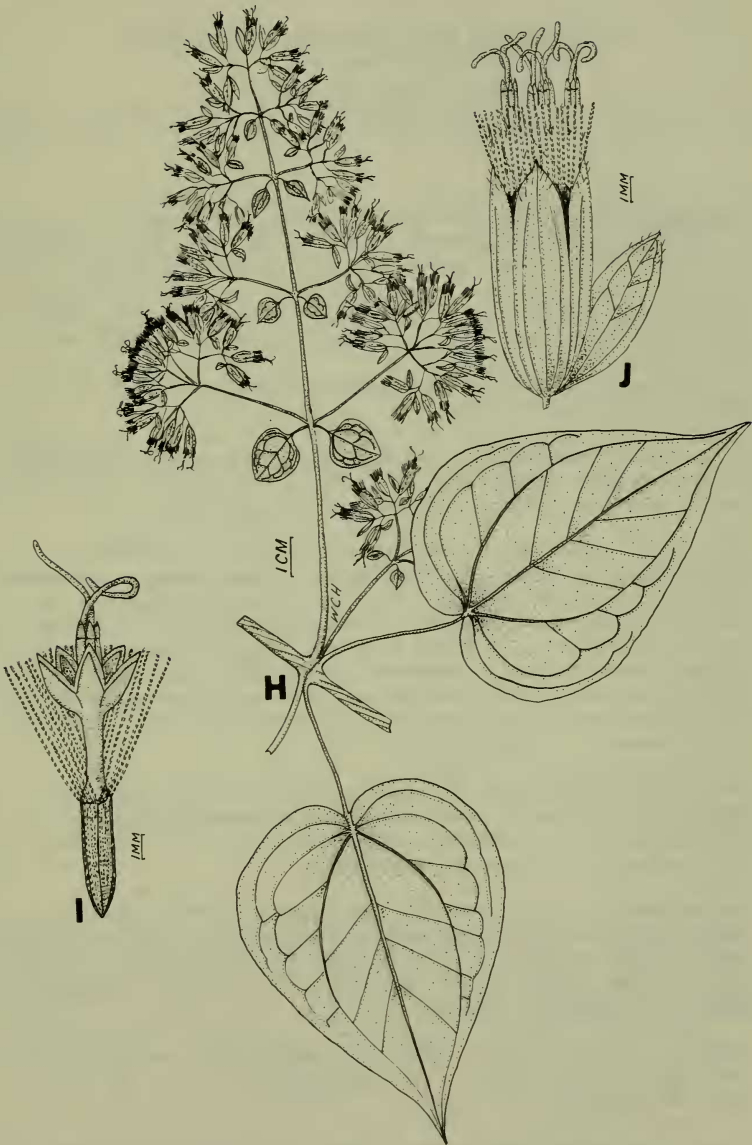


Fig. 3. Mikania lindleyana DC. H. habit. I. flower. J. Head.  
(After Hayes 490 (BM).